

## PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

To:

Assistant Commissioner for Patents  
United States Patent and Trademark  
Office  
Box PCT  
Washington, D.C.20231  
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

<b>Date of mailing</b> (day/month/year) 18 May 2000 (18.05.00)	
<b>International application No.</b> PCT/FI99/00720	<b>Applicant's or agent's file reference</b> T298059PC/su
<b>International filing date</b> (day/month/year) 06 September 1999 (06.09.99)	<b>Priority date</b> (day/month/year) 09 September 1998 (09.09.98)
<b>Applicant</b> KOLMONEN, Juha	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:

07 April 2000 (07.04.00)

☐ in a notice effecting later election filed with the International Bureau on:2. The election ☒ was☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

<b>The International Bureau of WIPO</b> 34, chemin des Colombettes 1211 Geneva 20, Switzerland	<b>Authorized officer</b>  Nestor Santesso
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38

# RECORD COPY

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PCT REQUEST

T298059PC/su

Original (for SUBMISSION) - printed on 06.09.1999 12:40:47 PM

0 0-1	For receiving Office use only International Application No.	PCT/FI 9 9 / 0 0 7 2 0
0-2	International Filing Date	0 6 SEP 1999 ( 0 6. 09. 99 )
0-3	Name of receiving Office and "PCT International Application"	The Finnish Patent Office PCT International Application
0-4 0-4-1	Form - PCT/RO/101 PCT Request Prepared using	PCT-EASY Version 2.84 (updated 01.07.1999)
0-5	Petition The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty	
0-6	Receiving Office (specified by the applicant)	National Board of Patents and Registration (Finland) (RO/FI)
0-7	Applicant's or agent's file reference	T298059PC/su
I	Title of invention	TRANSMISSION METHOD AND RADIO SYSTEM
II II-1 II-2 II-4 II-5	Applicant This person is: Applicant for Name Address:	applicant only all designated States except US NOKIA TELECOMMUNICATIONS OY Keilalahdentie 4 FIN-02150 Espoo Finland
II-6	State of nationality	FI
II-7	State of residence	FI
III-1 III-1-1 III-1-2 III-1-4 III-1-5	Applicant and/or inventor This person is: Applicant for Name (LAST, First) Address:	applicant and inventor US only KOLMONEN, Juha Koulukatu 9 A 203 FIN-90100 Oulu Finland
III-1-6	State of nationality	FI
III-1-7	State of residence	FI

## PCT REQUEST

T298059PC/su

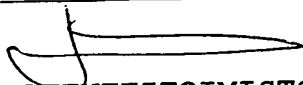
Original (for SUBMISSION) - printed on 06.09.1999 12:40:47 PM

IV-1	Agent or common representative; or address for correspondence The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:	agent
IV-1-1	Name	PATENTTITOIMISTO TEKNOPOLOIS KOLSTER OY
IV-1-2	Address:	C/O Kolster Oy Ab Iso Roobertinkatu 23 P.O. Box 148 FIN-00121 Helsinki Finland
IV-1-3	Telephone No.	+ 358 9 618 821
IV-1-4	Facsimile No.	+ 358 9 602 244
IV-1-5	e-mail	Kolster@Kolster.Fi
V	Designation of States	
V-1	Regional Patent (other kinds of protection or treatment, if any, are specified between parentheses after the designation(s) concerned)	AP: GH GM KE LS MW SD SL SZ UG ZW and any other State which is a Contracting State of the Harare Protocol and of the PCT EA: AM AZ BY KG KZ MD RU TJ TM and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT EP: AT BE CH&LI CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE and any other State which is a Contracting State of the European Patent Convention and of the PCT OA: BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG and any other State which is a member State of OAPI and a Contracting State of the PCT
V-2	National Patent (other kinds of protection or treatment, if any, are specified between parentheses after the designation(s) concerned)	AE AL AM AT (patent and utility model) AU AZ BA BB BG BR BY CA CH&LI CN CR CU CZ (patent and utility model) DE (patent and utility model) DK (patent and utility model) DM EE (patent and utility model) ES FI (patent and utility model) GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK (patent and utility model) SL TJ TM TR TT UA UG US UZ VN YU ZA ZW

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BY RO/FI

V-5	Precautionary Designation Statement In addition to the designations made under items V-1, V-2 and V-3, the applicant also makes under Rule 4.9(b) all designations which would be permitted under the PCT except any designation(s) of the State(s) indicated under item V-6 below. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit.	
V-6	Exclusion(s) from precautionary designations	NONE
VI-1	Priority claim of earlier national application	
VI-1-1	Filing date	09 September 1998 (09.09.1998)
VI-1-2	Number	98193[4] <sup>AA</sup> 5 <sup>A</sup>
VI-1-3	Country	FI
VI-2	Priority document request The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) identified above as item(s):	VI-1
VII-1	International Searching Authority Chosen	Swedish Patent Office (ISA/SE)
VIII	Check list	number of sheets      electronic file(s) attached
VIII-1	Request	4      -
VIII-2	Description	8      -
VIII-3	Claims	4      -
VIII-4	Abstract	1      t298059p.txt
VIII-5	Drawings	2      -
VIII-7	TOTAL	19
	Accompanying items	paper document(s) attached      electronic file(s) attached
VIII-8	Fee calculation sheet	✓      -
VIII-9	Separate signed power of attorney	✓      -
VIII-10	Copy of general power of attorney	✓      -
VIII-16	PCT-EASY diskette	-      diskette
VIII-18	Figure of the drawings which should accompany the abstract	2
VIII-19	Language of filing of the international application	English
IX-1	Signature of applicant or agent	 Tapio Valkeiskangas
IX-1-1	Name	PATENTTITOIMISTO TEKNOPOLOIS KOLSTER OY

## FOR RECEIVING OFFICE USE ONLY

10-1	Date of actual receipt of the purported international application	06 SEP 1999      ( 06 -09- 1999 )
10-2	Drawings:	
10-2-1	Received	
10-2-2	Not received	

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10-3	Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application	
10-4	Date of timely receipt of the required corrections under PCT Article 11(2)	
10-5	International Searching Authority	ISA/SE
10-6	Transmittal of search copy delayed until search fee is paid	

## FOR INTERNATIONAL BUREAU USE ONLY

11-1	Date of receipt of the record copy by the International Bureau	
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1  
INTERNATIONAL SEARCH REPORT

International application No.  
PCT/FI 99/00720

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: H04B 7/26, H04B 1/38, H04Q 7/38  
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: H04B, H04Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5793744 A (MIKKO KANERVA ET AL), 11 August 1998 (11.08.98), column 3, line 44 - column 4, line 56 --	1,12
A	US 5430760 A (PAUL W. DENT), 4 July 1995 (04.07.95), column 2, line 52 - column 3, line 68, figure 2 --	1,12
P,A	GB 2332598 A (MOTOROLA LIMITED), 23 June 1999 (23.06.99), figure 2, abstract --	1-23
A	WO 9836508 A1 (NOKIA TELECOMMUNICATIONS OY), 20 August 1998 (20.08.98), abstract --	1,12

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"I" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

9 February 2000

Date of mailing of the international search report

11-02-2000

Name and mailing address of the ISA/  
Swedish Patent Office  
Box 5055, S-102 42 STOCKHOLM  
Facsimile No. +46 8 666 02 86

Authorized officer

Fredrik Blomqvist/MN  
Telephone No. +46 8 782 25 00

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GB 2297669 A (NOKIA MOBILE PHONES LIMITED), 7 August 1996 (07.08.96), figure 4, abstract  --	1-23
P,X	WO 9910995 A1 (TELEFONAKTIEBOLAGET LM ERICSSON), 4 March 1999 (04.03.99), page 3, column 5 - column 22; page 7, line 19 - page 13, line 20, claims 1-23  -- -----	1-23

INTERNATIONAL SEARCH REPORT  
Information on patent family members

02/12/99

International application No.

PCT/FI 99/00720

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5793744 A	11/08/98	AU 1099497 A CA 2210861 A CN 1176030 A EP 0809901 A FI 101332 B FI 956087 A JP 11501185 T NO 973765 A WO 9723073 A	14/07/97 26/06/97 11/03/98 03/12/97 00/00/00 19/06/97 26/01/99 15/08/97 26/06/97
US 5430760 A	04/07/95	AU 667923 B AU 4280693 A BR 9305478 A CA 2111000 A EP 0565507 A FI 935525 A JP 8502151 T NZ 252801 A SG 50659 A WO 9321692 A	18/04/96 18/11/93 11/10/94 28/10/93 13/10/93 17/01/94 05/03/96 25/09/96 20/07/98 28/10/93
GB 2332598 A	23/06/99	CN 1221267 A FR 2774240 A GB 9726879 D	30/06/99 30/07/99 00/00/00
WO 9836508 A1	20/08/98	AU 5666098 A CN 1217840 A,T EP 0914722 A FI 3110 U FI 970293 A,V NO 984433 A	08/09/98 26/05/99 12/05/99 27/10/97 25/07/98 23/11/98
GB 2297669 A	07/08/96	AU 694928 B AU 4261896 A CN 1174636 A DE 19546577 A ES 2111482 A,B FI 2191 U FI 99066 B,C FI 950419 A,V FR 2730117 A,B GB 9525966 D JP 10513318 T NL 1001927 A,C SE 506999 C SE 9504541 A WO 9624200 A	06/08/98 21/08/96 25/02/98 01/08/96 01/03/98 21/11/95 13/06/97 01/08/96 02/08/96 00/00/00 15/12/98 00/00/00 16/03/98 01/08/96 08/08/96
WO 9910995 A1	04/03/99	AU 9435298 A	16/03/99



## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference T298059/PC/nu	<b>FOR FURTHER ACTION</b>	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/FI99/00720	International filing date (day/month/year) 06.09.1999	Priority date (day/month/year) 09.09.1998
International Patent Classification (IPC) or national classification and IPC <sub>7</sub> H 04 B 7/26, H 04 B 1/38, H 04 Q 7/38		
Applicant NOKIA NETWORKS OY ET AL.		

<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of _____ sheets.</p>
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>

Date of submission of the demand 07.04.2000	Date of completion of this report 05.09.2000
Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM Facsimile No. 08-667 72 88	Authorized officer Fredrik Blomqvist/AE Telephone No. 08-782 25 00

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/FI99/00720

## I. Basis of the report

1. This report has been drawn on the basis of *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.)*:

- ☒ the international application as originally filed.
- ☐ the description, pages \_\_\_\_\_, as originally filed,  
pages \_\_\_\_\_, filed with the demand,  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_,  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_.
- ☐ the claims, Nos. \_\_\_\_\_, as originally filed,  
Nos. \_\_\_\_\_, as amended under Article 19,  
Nos. \_\_\_\_\_, filed with the demand,  
Nos. \_\_\_\_\_, filed with the letter of \_\_\_\_\_,  
Nos. \_\_\_\_\_, filed with the letter of \_\_\_\_\_.
- ☐ the drawings, sheets/fig \_\_\_\_\_, as originally filed,  
sheets/fig \_\_\_\_\_, filed with the demand  
sheets/fig \_\_\_\_\_, filed with the letter of \_\_\_\_\_,  
sheets/fig \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the supplemental Box (Rule 70.2(c)).

4. Additional observations, if necessary:

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/FI99/00720

**V. Resoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims	<u>1-23</u>	YES
	Claims	_____	NO
Inventive step (IS)	Claims	<u>1-23</u>	YES
	Claims	_____	NO
Industrial applicability (IA)	Claims	<u>1-23</u>	YES
	Claims	_____	NO

**2. Citations and explanations**

The claimed invention relates to a method for a radio system with a base transceiver station acting as a transceiver and subscriber terminals acting as transceivers interconnected by the signal passing through the base station. This signal contains speech or data, which is coded before it is transmitted to the radio path and decoded when it is received from it. The radio channel is measured and a control signal is transmitted on the basis of results from a transceiver in discontinuous transmission mode at a lower power than that used for transmitting speech or data signals. The transceiver coding and decoding parameters are then updated to alter the speech and channel coding and decoding rates.

**D1)** US 5793744 A

**D2)** US 5430760 A

Document **D1** presents a multi-channel high speed data transfer method for digital mobile communication system. It is using non-transparent data connection between transmitter and receiver, and allocating parallel sub-channels corresponding to nominal data transfer rate on radio interface, and retransmitting defective frames.

Document **D2** shows a mobile telephone power control method for random access call set up. It transmits increasingly powerful signal from mobile station until base station responds with acknowledgement message and power indication.

.../...

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

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**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Box V.

The claimed invention differs from the cited documents in that neither of the cited documents transmits a control signal on the basis of the measurement results from a transceiver in DTX mode to another transceiver in DTX mode, where the control signal is transmitted at a power level which is lower than the power level used in transmitting speech.

Therefore, the invention claimed in claims 1-23 is novel, comprise industrial applicability, and is considered to involve an inventive step.